

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105

<<ENFORCEMENT CONFIDENTIAL>>

MEMORANDUM

DATE:

July 6, 1992

SUBJECT:

Preliminary Assessment Review

Facility: Solar Turbines, International

PA date: 4/30/91

FROM:

Ray Saracino

TO:

Karen Schwinn

Chief, Waste Compliance Branch

THROUGH:

Alisa Greene (WM

Chief, Corrective Action Section

FACILITY DESCRIPTION I.

Facility Name: Solar Turbines International

Address:

2200 Harbor Drive San Diego, CA 92138

EPA ID Number: CAD 008 314 908

DTSC Region (if CA): 4

RWQCB Region (if CA): 9

A. Brief Description of Facility Operations and Hazardous Waste Management:

> Solar Turbines International (Solar) manufactures components used in the assembly of gas turbine engines. These engines, along with boost compressor pumps are relied upon to "step up" the pressure in oil transportation pipelines. The Solar facility consists of numerous buildings housing manufacturing, assembling, supporting and administrative functions.

Wastes generated by the facility are primarily from the three main processes of metal fabrication, metal machining and metal processing:

- Metal shavings and grindings
- · Waste coolants and oils
- Various liquid acid wastes
- Sodium hydroxide and zinc phosphate liquid wastes
- Plating and painting wastes
- TCA sludge (from TCA distillation units).

B. SWMU Release Inventory:

The following is a table of Solid Waste Management Units (SWMUs) releases and release potential to the various media. Releases are described with either a "D" for Documented, a "V" for Visual, or a "P" for Potential. Potential releases are further characterized as "H," "M," or "L" for High, Medium and Low. RCRA-regulated units are starred with an asterisk.

SWMU TABLE

SWMU #	Name	Soil	GW	sw	Air
* 1	Hazardous Waste Storage Yard				
2	TCA Degreasers (6 separate units)				
* 3	TCA Distillation Unit				

Note:

SWMU #3 has received and distilled waste TCA from another Solar facility. As a result, it appears that this unit is RCRA regulated.

AOC TABLE

AOC #	Name	Soil	GW	sw	Air
4	Chemical Process Area				
5	USTs	D	D	P-h	

II. ENVIRONMENTAL SIGNIFICANCE:

- A. Hazardous Waste Exposure and Constituent Information Instructions:
 - 1. Designate as appropriate: D documented evidence (e.g. analytical data), V visual evidence (e.g. observed spills, stained soils, etc.), P -potential for

release (e.g. past waste management practices suggest probable releases, known soil contamination has probably caused groundwater contamination, etc.). Specify documentation, who saw visual evidence, and/or rationale for potential release, if known.

- 2. Provide released or potentially released listed waste or constituent information to each appropriate media. Include volume of waste released, if known, toxicity (using toxicity table), and physical state of contaminants (e.g. gas, liquid, sludge, stable solid).
- 3. Indicate whether release has already been remediated.
- 4. Stabilization is appropriate if:
 - a. there are actual or imminent exposure threats to humans or ecosystems at levels of concern;
 - b. inexpeditiously addressed releases will result in further significant contamination; or
 - c. site characteristics suggest that the site may be amenable to control or abatement of imminent threats.

		INVITIZATION MAY BE
	Imminent danger to public health/environme Immediate action required; explain:	ent all sources of country It is not certain if
X	Stabilization measures appropriate; expla	in: removed.
	Release to soil. D V P	
	Many of the original 31 onsite USTs have released various hydrocarbons into	

released various hydrocarbons into the soils. Heavy oil petroleum hydrocarbons and fuel hydrocarbons were detected at concentrations as high as 5,800 mg/kg and 120,000 mg/kg respectively. VOCs detected include benzene, toluene, and xylene. Concentrations of chlorinated organics have also been detected.

X Release to groundwater. D V P-h

The leaking USTs have been visually observed (during removal) to be in contact with groundwater which occurs at approximately 10 feet bgs. However, due to the proximity of the site to the San Diego Bay (300 feet) the ground water is not a source of drinking water. Donn Lipera (see Section V. A.) of the San Diego Co. Health Dept. informed me that recent ground water quality data from the site revealed vinyl chloride at 26,000 ug/l and TCE at 16,000 ug/l.

<<ENFORCEMENT CONFIDENTIAL>> X Release to surface water. D V P**-**h Again, due to the proximity of the site to the bay (300 feet), there is a high potential for the leaking USTs to impact the bay. _____ Release to air. D X High Potential for Migration (media: Soil, SW, GW) X Sensitive environmental receptors onsite or within 4 miles (endangered species, wetlands, etc.) Explain: San Diego Bay provides habitat for the following threatened or endangered species: California black-tailed gnatcatcher snake cholla Orcutt's spineflower salt marsh birds beak. ____ No releases Extent of Site Characterization (check one): ____minimal <u>X</u>extensive unknown The areas which formerly contained the USTs have been extensively characterized under the oversight of the DTSC. B. Exposure Considerations: (D - Documented, P - Potential) release. 1. Groundwater (GW): If potential exposure is a concern,

- Skip this section if there is no potential or documented
 - please specify whether release is "highly suspected" (HS). A highly suspected release to groundwater means that there is known soil contamination from a large volume of mobile constituents with high migration potential where there is no known aquiclude between contaminated soil and ground water.

no	Current GW drinking water source impacted
no	Sole Source (Class I) aquifer impacted
no	Impacts on potable water aquifer but not currently used as drinking water

Depth to GW 10' GW flow direction west during low tide and south-west during high tide
Direction/Distance to nearby wells unknown
Population Served <u>unknown</u>
2. <u>Surface Water</u> (SW):
<u>no</u> SW drinking water source impacted
Direction/Distance to SW 300 feet west
Distance to sensitive environment related to SW contamination
Distance to drinking water supply intake or contact point
Net Precipitation unknown 24 hour rainfall unknown
Permitted outfall no Permit Violations
<u>unknown</u> Flood prone area <u>unknown</u> 100-yr flood plain
<u>potentially</u> Fishing, recreation water source impacted
no Irrigation, livestock water source impacted
The following near coastal waters and Estuary factors should not be considered in the initial staff prioritizing process. The information will be considered by management with the recommendation. Check if contamination affects any of the following near
coastal waters:
Apra Harbor (Guam) Babelthaup Island Bays (Palau) Kaiaka Bay (Hawaii) Kailua Bay (Hawaii) Kona Coast (Hawaii) Morro Bay (California) Pago Pago Harbor (American Samoa) Pearl Harbor (Hawaii) X San Diego Bay (California) Tijuana Estuary (California)

	eck if contamination	n affects	either	of	these	Estuary
PT	San Francis Santa Monic	- '	ta			
3.	Air:					
	<u>no</u> Blowing dus	t; nearby]	populati	on		
	<u>yes</u> Air permits	unk	nown Per	mit '	violati	ons
	<u>no</u> Can contamin	nants migra	ate into	air	?	
	unknown Target Pop	ulation < 4	4 miles	(# a)	nd dist	ance)
4.	On site:					
	Accessibility:	inaccess: limited a poor secu	access _			
	no Observed sur	rface soil	contami	natio	on	

III. SITE ENVIRONMENTAL PRIORITY

Instructions: Assign priority based on technical considerations only. Final priority should be briefly explained in terms of potential exposure to human health and the environment based on the technical considerations in Sec. II.

High Priority

* Known or highly suspected release which has resulted in, or which has high potential for, exposure to human population and sensitive environments (other than near coastal waters and estuary project sites), in the short term (< 10 years). Choose this priority if there is known or highly suspected contamination to a sole source aquifer currently being used.

X Medium Priority

* Known or highly suspected release with potential for exposure to human health and sensitive environments (other than near coastal waters and estuary project sites) in the long term (> 10 years).

___ Low Priority

* Known or highly suspected release, but unlikely adverse effect on human health and the environment.

No Further Action

* No evidence of a release that could adversely affect human health and the environment.

X NCAPS Priority High Medium Low

* Check if NCAPS has been completed and underline appropriate NCAPS-based priority. If the NCAPS-based priority does not agree with your assessment of priority, discuss below.

Comments/Rationale to support priority:
Without considering the potential impact to the San Diego Bay, there is still the potential for the 520 on-site workers to be exposed to air emissions from the contaminated soil/groundwater. The known areas of soil contamination are reportedly covered with asphalt however, subsurface migration of contaminants and subsequent volatilization could lead to exposure in the long term via the air pathway. Contaminants include benzene and vinyl chloride.

IV. RCRA PERMITTING STATUS

A. Contact Person(s):

#	Name	Contact Date	Phone	Agency
1				EPA-Permits
2	Ron Okuda	7/6/92	(310) 590-4885	DTSC
3				RWQCB
4				Other

B. Current Status (mark all applicable): Instructions: For source, indicate file document or numeral for contact person listed above.
X Operating RCRA TSDF; Source: PA
Not Operating RCRA TSDF; Source:
Bankrupt Facility; Source:
Non-Notifying TSDF - should be a RCRA TSDF but didn't submit a Part A permit application. Source:
Generator only - never operated as a TSDF. Source:
X Permitted TSDF or Seeking Permit; Source: PA
Date Permitted: 7/24/87 Agency: DHS
Part B Permit Application Submitted? Y N
Permit Application Review Lead (circle) EPA STATE-DTSC OTHER (specify)
Corrective Action in (draft) Permit? Y N
Expected Permit Issuance Date:
Permit Expiration Date: 7/24/92
Permit Renewal Application Submitted \underline{Y}^* N
* According to Pon Okuda DECC the facility has withdraw

^{*} According to Ron Okuda, DTSC, the facility has withdrawn their permit renewal application and desires to undergo closure.

(Expected) Renewed Permit Issuance Date: Renewed Permit Expiration Date: X Closed or Closing Facility; Source: 2 Closure Plan Submittal (Expected) Date: unknown Closure Plan Review Lead (circle all applicable): STATE-DTSC OTHER (specify) Closure Plan Approved? Y N Date: Closure Certification Received? Y Ν Clean Closed? Y Ν Closure Certification accepted by EPA/DTSC? Y N Post-Closure permit; Source: Post-Closure Permit Application Submitted? Post-Closure Permit Application Review Lead EPA STATE Other (specify) Corrective Action in (draft) Permit Y N NA (Expected) Post-Closure Permit Issuance Date: Combination: some units closing, some seeking permit (i.e. partial closure). Source: Explain: Part A Withdrawal Candidate; Source: Explain: RWQCB Waste Discharge Requirements requiring investigation and/or remediation in Effect (CA only)

Other Comments:

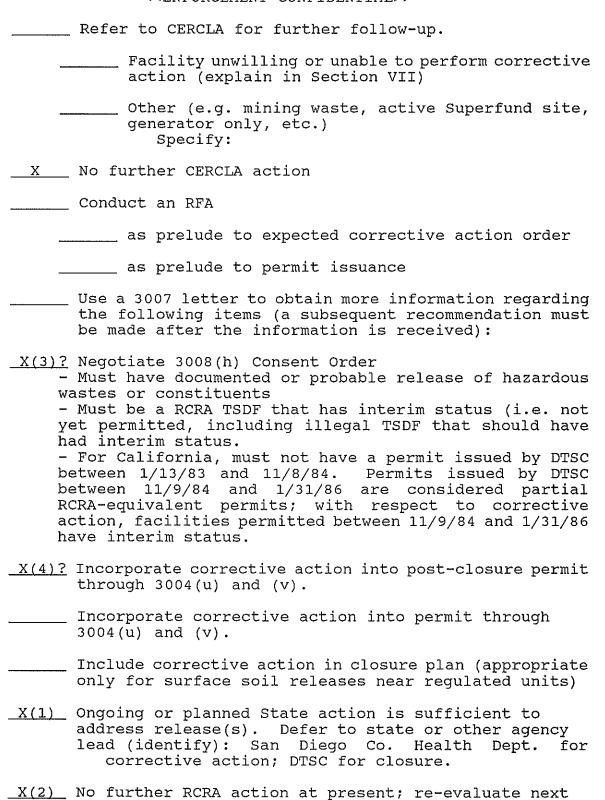
V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION

A. Contact Person(s):

#	Name	Contact Date	Phone	Agency
6				EPA-Enforc
7				EPA CERCLA
8				DTSC-Enforc
9	Ron Okuda	7/6/92	(310) 590-4885	DTSC-Permits
10	Jim Munch		(619) 265-5114	RWQCB
11	Donn Lipera	7/6/92	(619) 338-2244	County Health Dept.

	ivity nstructions: mark all applicable; note any pertinent utstanding violations.
	EPA Enforcement Action with Activities Relevant to Corrective Action; Source: Date: Explain:
	State Enforcement Action with Activities Relevant to Corrective Action; Source: Date: Explain:
	Regional Water Board Order or WDR Requiring Corrective Action (CA only); Source: Date: Explain:
X	Other Agency Enforcement Action with Activities Relevant to Corrective Action; Source: 9, 11 Date: 7/6/92 Explain: Three agencies are currently involved with this site. DTSC is involved because the facility wishes to undergo closure of its RCRA regulated units. San Diego County Health Department and RWQCB are involved because of past releases to the ground water from USTs. San Diego County Health Department (the county) is the lead agency for corrective action at the facility.

				ACTIVITIES on's oversight)
X	High	Medium	Low	None
Ration	is review strong wor	ing all subm king relation	ittals. Th ship with the	th the site and e RWQCB has a county and has to the county.
VII. FACILI	TY WILLINGNESS	S/ABILITY TO E	ERFORM CORRE	CTIVE ACTION
X	Facility is c	cooperative		
	Facility is u	ncooperative;	Explain:	
	Unknown			
	Facility may Explain:	be financiall	y unable to	complete work.
Other	Comments:			
Instru at fir		er factors in ation for fu	Sections I cther action	- VII to arrive . If several
		equires issuar		n health or the 003 Order and/or
X	Stabilization	evaluation c	ompleted	
 	Stabili Stabili X Further	zation requir zation not re zation not fe investigation asibility of	quired asible on necessary	(to determine
	Issue RCRA 30 presents a suthe environme	bstantial haz	ard to human	



year.

appropriate.

(unless leaks Can Be considered "systematic Providered "systematic").

contacted concerning the status of the facilities closure activities and action 3 or 4 should be pursued as

Karen Schu 8/29/92

Kareh Schwinn

Chief

Waste Compliance Branch

Environmental Benefits:

Raise priority to High due to near coastal waters impacts.

Raise priority to _____ due to estuary project impacts.

When applicable, entity to perform RFA:

_____State

_____ FIT (CERCLA)

_____ contractor (RCRA)

_____Other; specify:

cc: Nancy Nadel, EPI Coordinator, H-4-4

SOLAR TURBINES INTERNATIONAL EPA SITE NUMBER: CAD 008 314 908 SAN DIEGO, CA

SCORED BY: RAY SARACINO
OF USEPA REGION IX
ON 07/06/92

GROUNDWATER SCO	ORE : 0.0	0
SURFACE WATER S	SCORE: 47.2	7
AIR ROUTE SCORI	E : 23.7	9
ONSITE SCORE	: 0.0	0
	NAS 600 600 600 600 600 600 600 600 600 60	· -
MIGRATION SCORE	E : 26.4	6

WS-1 GROUNDWATER ROUTE

IS THERE AN OBSERVED RELEASE? Y

ROUTE CHARACTERISTICS

DEPTH TO AQUIFER (FT.) : NA

NET PRECIPITATION (IN.) : NA

PHYSICAL STATE: NA

CONTAINMENT:

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: VINYL CHLORIDE

TOXICITY/PERSISTANCE VALUE: 15

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: 0
DRUMS: 0

AMOUNT IS LIKELY TO BE LARGE

TARGETS

GROUNDWATER USE: QUALITY IMPACTED

DISTANCE TO WELL (MILES): 4.0

WS-2 SURFACE WATER ROUTE

RELEASES

IS THERE AN OBSERVED RELEASE? N IS THERE A PERMITTED OUTFALL? N HAVE THERE BEEN PERMIT VIOLATIONS? N

ROUTE CHARACTERISTICS

FACILITY LOCATION: OTHER

24-HOUR RAINFALL: 3.0

DISTANCE TO SURFACE WATER (MILES): 0.06

PHYSICAL STATE: LIQUID, GAS, SLUDGE

CONTAINMENT: POOR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: VINYL CHLORIDE

TOXICITY/PERSISTANCE VALUE: 15

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: DRUMS

AMOUNT IS LIKELY TO BE LARGE

TARGETS

SURFACE WATER USE: POSSIBLE DRINKING WATER OR RECREATI DISTANCE TO INTAKE OR CONTACT POINT (MILES): 0.1 DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 0.1

WS-3 AIR ROUTE

RELEASES

IS THERE AN OBSERVED, UNPERMITTED, ON-GOING RELEASE? N
DOES THE FACILITY HAVE AN AIR OPERATING PERMIT(S)? Y
HAVE THERE BEEN ANY PERMIT VIOLATIONS OR ODOR COMPLAINTS BY
CAN CONTAMINANTS MIGRATE INTO AIR? Y
CONTAINMENT: POOR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: BENZENE

TOXICITY/PERSISTANCE VALUE: 3

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: ODRUMS : 0

AMOUNT IS LIKELY TO BE LARGE

TARGETS

POPULATION: RESIDENCES ARE LOCATED WITHIN FOUR MILES

DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 0.1

WS-4 ON SITE CONTAMINATION

ACCESS TO SITE: INACCESSIBLE

IS THERE AN OBSERVED SURFACE SOIL CONTAMINATION? N

CONTAINMENT: GOOD

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: BENZENE

TOXICITY/PERSISTANCE VALUE: 3

TARGETS

DISTANCE TO RESIDENTIAL AREAS (MILES): 0.50

IS THERE AN ON-SITE SENSITIVE ENVIRONMENT: N

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by: Ray Saracino ?	•
Background Facility Information	
EPA Identification No.: Location (City, State): Solution Priority Parks	
1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility? Explain. Status of Corrective Action Activities at the Facility	4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility? () Yes () No () Uncertain; still underway
2. What is the current status of HSWA corrective action activities at the facility? (X) No corrective action activities initiated () RCRA Facility Assessment (RFA) or equivalent completed () RCRA Facility Investigation (RFI) completed () Corrective Measures Study (CMS) completed () Corrective Measures Implementation (CMI) begun or completed () Interim Measures begun or completed	CONTINUE TO QUESTION 5 ONLY IF THE FOLLOWING CONDITIONS ARE MET: The facility ranks "High" on the National Corrective Action Prioritization System; AND Interim Measures have not been initiated, or if initiated, have not been successful in preventing the further spread of contamination at the facility. Facility Releases and Exposure Concerns To what media have contaminant releases from the facility occurred or been suspected of occurring?
 If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order? () Operating permit () Post-closure permit () Enforcement order 	(X) Ground water (X) Surface water () Air (X) Soils

6.	Are contaminant releases migrating off- site?	Anticipated Final Corrective Measures
•	() Yes; Indicate media, concentrations, and level of certainty.	9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat
	ncertin	to human health and the environment?
 7a.	() No () Uncertain Are humans currently being exposed to contaminants released from the facility?	() Yes () No () Uncertain Additional explanatory notes: Anal C/A measures not identified
-	() Yes . No () Uncertain	10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and
7b.	Is there a potential for human exposure to the contaminants released from the facility over the next five to 10 years? Yes No Uncertain	the environment? () Yes () No () Uncertain Additional explanatory notes:
8a.	Are environmental receptors currently being exposed to contaminants released from the facility?	11. If a stabilization activity were not begun,
	() Yes () No ☑ Uncertain	would the threat to human health and the environment significantly increase before final corrective measures could be implemented?
8b.	Is there a potential that environmental receptors could be exposed to the contaminants released from the facility over the next five to 10 years?	() Yes () No (>) Uncertain
	Yes () No () Uncertain	Additional explanatory notes:

Technical Ability to Implement Stabilization 15. Has the RFI, or another environmental Activities investigation, provided the site characterization and waste release data 12. In what phase does the contaminant exist needed to design and implement a under ambient site conditions? stabilization activity? Solid Yes, possibly Light non-aqueous phase liquids () (LNAPLs) Dense non-aqueous phase liquids If No, can these data be obtained faster (DNAPLs) than the data needed to implement the (X)Dissolved in ground water or final corrective measures? surface water Gaseous Yes Other () No 13. Are one or more of the following major chemical groupings of concern at the Timing and Other Procedural Issues facility? Associated with Stabilization (X) Volatile organic compounds 16. Can stabilization activities be implemented (VOCs) and/or semi-volatiles more quickly than the final corrective Polynuclear aromatics (PAHs) measures? () **Pesticides** Polychlorinated biphenyls (PCBs) () Yes and/or dioxins () No Other organics (X) Uncertain Inorganics and metals () **Explosives** () Additional explanatory notes: Other potroleum hydroxarbons () 14. Are appropriate stabilization technologies available to prevent the further spread of contamination, based on contaminant 17. Can stabilization activities be incorporated "characteristics and the facility's into the final corrective measures at some environmental setting? [See Attachment point in the future? A for a listing of potential stabilization technologies.] Yes No Yes; Indicate possible course of () Uncertain action. Additional explanatory notes:

::0.70

()

No; Indicate why stabilization technologies are not appropriate;

then go to Question 19.

Conclusion

18. Is this facility an appropriate candidate for stabilization activities?

()	Yes
()	No, not feasible
()	No, not required
(x)	Need improved a final decision, using additional
Explain	final decision, using additional
choote	if nacecean

Sik assessent data has been collected for the Co. Health Dept and Philipps but was not obtained for this winew.

Haggeous that all USTs have been removed, it is not certain better if further Stabilization measures are needed/feasible.